

JAPAN

EDICT OF GOVERNMENT

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JIS B 9210 (1988) (English): Blades for tillers

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*The citizens of a nation must
honor the laws of the land.*

Fukuzawa Yukichi

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JIS

JAPANESE INDUSTRIAL STANDARD

Blades for Tillers

JIS B 9210—1988

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

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Blades for Tillers

B 9210-1988

1. Scope

This Japanese Industrial Standard specifies forged blades for tillers. However, special blades such as those for field service work and for rearrangement work after tilling are excluded.

2. Shapes and Dimensions

The shapes, dimensions, and permissible deviations of the attaching part of blades for tillers shall be as shown in Attached Figure.

Reference For the shapes, dimensions, and permissible deviations of the blade part, refer to the Reference Attached Figure.

3. Appearance

Blades for tiller shall be properly finished over the whole length and be free from defects detrimental to use, such as cuts.

In addition, blades for tiller shall be applied with an antirust treatment such as painting.

4. Material

The material used for blades for tiller shall be S 58 C specified in JIS G 4051 or SUP 6 or SUP 9 specified in JIS G 4801, or be a material equal or superior thereto in quality.

5. Manufacturing Method

Blades for tiller shall be produced by forging and be applied with a heat-treatment to be given a suitable hardness.

Applicable Standards:

JIS G 4051-Carbon Steels for Machine Structural Use

JIS G 4801-Spring Steels

6. Designation of Products

Blades for tiller shall be designated by the number or title of this Standard, shape of attaching part, nomination, base width, base thickness, and the shape of blade part.

Example 1: JIS B 9210 straight line type 225 25 10

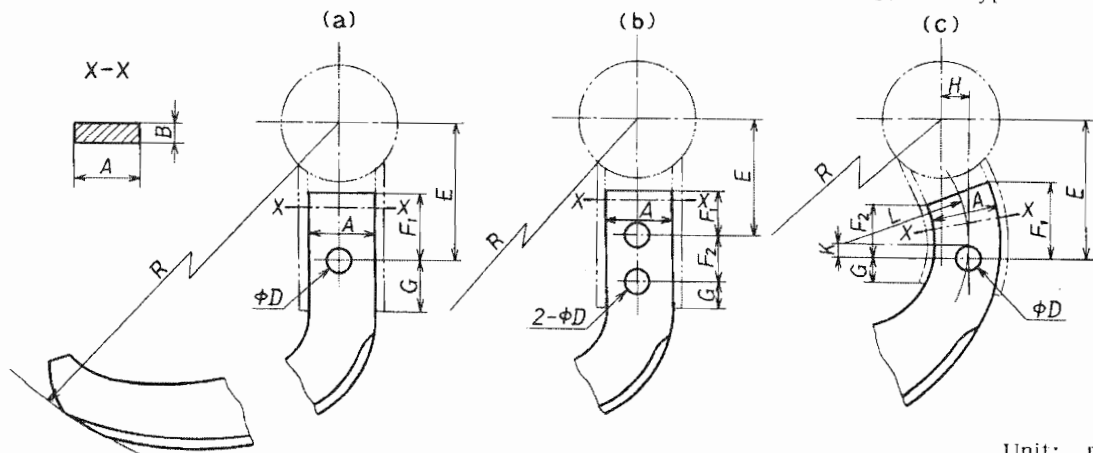
Example 2: Blade for
 tillers straight line type 225 25 10

7. Marking

Blades for tiller shall be marked with the following items of information.

- (1) Nomination
- (2) Base with (A)
- (3) Base thickness (B)

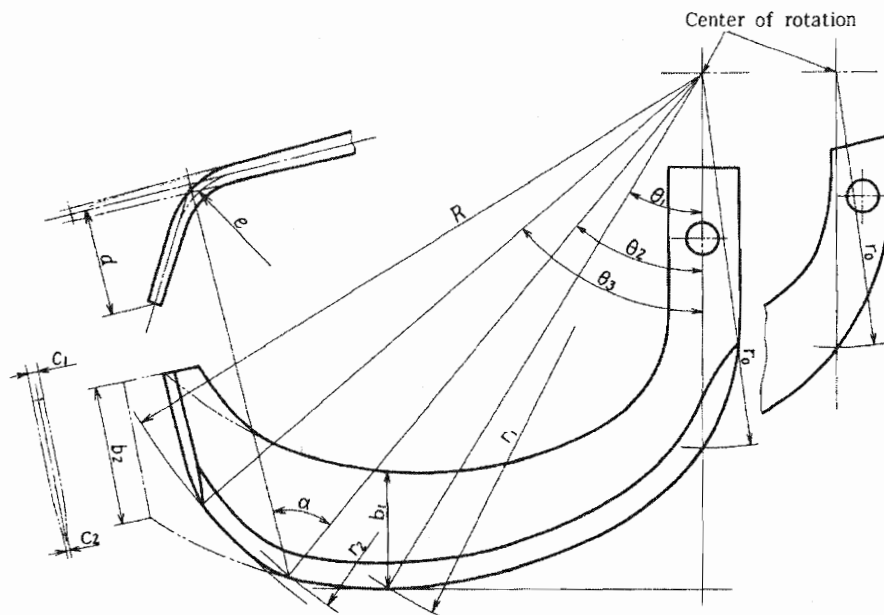
Attached Figure. Shapes, Dimensions, and Permissible Deviations of Blades for Tiller
Straight Line Type Curved Type



Shape of attaching part	Nomination	Blade radius R	Base with A	Base thickness B	Hole diameter D	Hole position E	Informative reference						Figure
							Head		Neck G	Eccentricity H	Center position K	Base radius L	
							F_1	F_2					
Straight line type	200	$200_{-4.0}^0$	$21.5_{-0.7}^0$	8.5 ± 0.5	10.5 ± 0.2	45	20	—	20 min.	—	—	—	Attached Figure (a)
	225	$225_{-4.0}^0$					25		23 min.				
	200	$200_{-4.0}^0$	$25_{-0.7}^0$			58	25	—	23 min.	—	—	—	
	225	$225_{-4.0}^0$											
	225	$225_{-4.0}^0$		58.5		—		23 min.	—	—	—		
	235	$235_{-4.0}^0$											
	255	$255_{-4.0}^0$	50	—		23 min.		—	—	—			
	245	$245_{-4.0}^0$									55	27 min.	
	245	$245_{-4.0}^0$	10 ± 0.5	65	25	—		25 min.	—	—			
	255	$255_{-4.0}^0$									63.5		
	255	$255_{-4.0}^0$		12.5 ± 0.2		70	30		—	28 min.		—	
	260	$260_{-4.0}^0$									$32_{-0.7}^0$		12 ± 0.5
200	$200_{-4.0}^0$	$22_{-0.3}^{+0.7}$	8.5 ± 0.5	10.5 ± 0.2	45	25	19	9	9	100		Attached Figure (c)	
225	$225_{-4.0}^0$										25 min.		
200	$200_{-4.0}^0$	$25_{-0.3}^{+0.7}$	10 ± 0.5			22	16						25 min.
225	$225_{-4.0}^0$												

Remark: Hole position E shows the reference dimension in the design of the blade, and the dimension used when attaching the blade may be different in some cases.
The nomination is given based on the blade radius.

Reference Attached Figure. Shapes, Dimensions, and Permissible Deviations of Blade Part



Unit: mm

Shape of blade part	Nomination	r_0	θ_1 (de-grees)	r_1	θ_2 (de-grees)	r_2	θ_3 (de-grees)	Width		Thickness		α (de-grees)	Curved part	
								b_1	b_2	c_1	c_2		d	e
Type 1	200	112 ± 4	34	187 ± 3	37	193 ± 2	51	35 to 40	40 to 50	3.5 to 5	5 to 6			
	225	126 ± 4		210 ± 3		218 ± 2		35 to 42	45 to 55					
	235	132 ± 4		219 ± 3		227 ± 2		40 to 47	47 to 57					
	245	137 ± 4		229 ± 3		237 ± 2		42 to 50	50 to 60					
	255	143 ± 4		238 ± 3		247 ± 2		44 to 52	52 to 65					
	260	146 ± 4		243 ± 3		251 ± 2		47 to 55	52 to 65					
Type 2	200	100 ± 4	34	168 ± 3	46	192 ± 2	57	35 to 40	40 to 50	3.5 to 5	1.5 to 2	50 to 70	35 to 45	30 to 40
	225	113 ± 4		189 ± 3		216 ± 2		35 to 42	45 to 55					
	235	118 ± 4		197 ± 3		226 ± 2		40 to 47	47 to 57					
	245	123 ± 4		206 ± 3		235 ± 2		42 to 50	50 to 60					
	255	128 ± 4		214 ± 3		245 ± 2		44 to 52	52 to 65					
	260	130 ± 4		218 ± 3		250 ± 2		47 to 55	52 to 65					
Type 3	200	96 ± 4	34	154 ± 3	58	195 ± 2	72	35 to 40	40 to 50	3.5 to 5	5 to 6			
	225	108 ± 4		173 ± 3		219 ± 2		35 to 42	45 to 55					
	235	113 ± 4		181 ± 3		229 ± 2		40 to 47	47 to 57					
	245	118 ± 4		188 ± 3		238 ± 2		42 to 50	50 to 60					
	255	122 ± 4		196 ± 3		248 ± 2		44 to 52	52 to 65					
	260	125 ± 4		200 ± 3		253 ± 2		47 to 55	52 to 65					

Remarks 1. This figure shows for reference the shapes, dimensions, and permissible deviations for hatchet type blades.

2. The values of angle θ_1 , θ_2 , and θ_3 show references approximately.

3. The thickness shall be decreased gradually from the base toward the blade end.

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